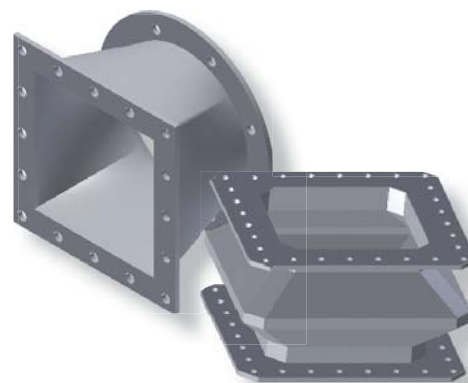


## WILLBRANDT Rubber Expansion Joint Type 63

Type 63 is a freely moulded rubber expansion joint that is designed and manufactured according to your specifications and construction dimensions. The cross-section can be round, square, oval or a combination of these. The multi-corrugated bellow option allows greater movement absorption. There are also a large number of rubber qualities available, which means that you can select a suitable rubber compound for almost any application (see the material descriptions on the following pages).

Type 63 is used to compensate movement, offsets and vibration in air, water and chemical plants.



<b>Bellow design</b>	Reinforced rubber bellow. Choice of cylindrical ends for fixing clamps/tension bands, clamping bars, or a moulded, pressure-resistant solid rubber flange, self-sealing (no additional seal necessary), suitable for backing flanges. The bellow can be uncorrugated, single-/multi-corrugated or pleated.	<b>Fixing</b>	The type of clamp / tension bands and the type of holes for the backing flange can be freely selected.
<b>Pressure resistance</b>	Max. operating pressure: 10 bar → As this is a free-form item, the max. permissible pressure is very dependent on the precise form!	<b>Approvals/Conformity</b>	Drinking water approval FDA and EG 1935/2004 conform
<b>Vacuum resistance</b>	Only vacuum-resistant with a vacuum supporting ring.	<b>Accessories</b>	<ul style="list-style-type: none"> <li>- Potential equalisation (vulcanised braid)</li> <li>- Guided sleeves</li> <li>- Flame-resistant protective covers</li> <li>- Dust and splash protection covers</li> <li>- Earth cover / sun protection hoods</li> <li>- Tie rods</li> </ul>

## Specifications

Bellow		Bellow design			Max. temperature °C	Permissible operating data									
Colour code	Colour marking	Core (inner)	Reinforcement	Cover (outer)		°C	bar	°C	bar	°C	bar	°C	bar	°C	bar
red		EPDM	Polyamide	EPDM	100										
blue		EPDM TW	Polyamide	EPDM	100										
white/red		EPDM beige	Polyamide	EPDM	100										
red		EPDM AF	Polyamide	EPDM	100										
green		CSM	Polyamide	CSM	100										
yellow-grey		NBR	Polyamide	CR	100										
white-grey		NBR beige	Polyamide	CR	100										
grey		CR	Polyamide	CR	90										
red-blue-red		EPDM	Aramid	EPDM	100										
blue-blue-blue		EPDM TW	Aramid	EPDM	100										
white-blue-red		EPDM beige	Aramid	EPDM	100										
orange-blue-orange		EPDM HT	Aramid	EPDM HT	125										
red-blue-red		EPDM AF	Aramid	EPDM	100										
green-blue-green		CSM	Aramid	CSM	100										
yellow-blue-grey		NBR	Aramid	CR	100										
white-blue-grey		NBR beige	Aramid	CR	100										
grey-blue-grey		CR	Aramid	CR	90										
lilac-blue-lilac		FPM	Aramid	FPM	180										
-	-	Silicone	Aramid	Silicone	180										
-	-	Silicone	Glass fabric	Silicone	200										

Expansion joints will be designed according to your operating parameters.

## Important information

**For aggressive media, please see the resistance table (can be requested separately).  
The bellows should not be painted or insulated. Please refer to the installation instructions.  
++++ We will be happy to send you further information on the individual types and designs. +++++**

## WILLBRANDT Rubber Expansion Joint Type 63

### Application

#### Type 63 red (EPDM)

For water, sea water, cooling water with glycol or other chemical additives for treating water, saline solutions, weak acids and weak alkali solutions. Unsuitable for aliphatic, aromatic and chlorinated hydrocarbons, oil or oily media.

#### Type 63 blue (EPDM TW)

Like Type 63 red, but approved for drinking water.

#### Type 63 white-red (EPDM beige)

Like Type 63 red, but with light-coloured rubber in food-grade.

#### Type 63 red AF (EPDM AF)

Like Type 63 red, but with abrasion-resistant EPDM rubber compound.

#### Type 63 green (CSM)

For chemicals, aggressive, chemical wastewater and compressor air containing oil.

#### Type 63 yellow-grey (NBR)

For oils, fats, gases, diesel fuels, kerosene and crude oil. Not suitable for aromatic and chlorinated hydrocarbons, esters and ketones.

#### Type 63 white-grey (NBR beige)

Like Type 63 yellow-grey, but with light-coloured internal rubber in food-grade. Not approved for drinking water!

#### Type 63 grey (CR)

For water, wastewater, swimming pool water, salt water, cooling water with anti-corrosive products containing oil, oil mixtures and compressed air containing oil.

#### Type 63 red-blue-red (EPDM/aramid)

Like Type 63 red, but with aramid fabric.

#### Type 63 blue-blue-blue AF (EPDM TW/aramid)

Like Type 63 blue, but with aramid fabric.

#### Type 63 white-blue-red AF (EPDM beige/aramid)

Like Type 63 white-red, but with aramid fabric.

#### Type 63 orange-blue-orange AF (EPDM HT/aramid)

Like Type 63 red, but with aramid fabric and for temperatures up to +125 °C.

#### Type 63 red-blue-red AF (EPDM AF/aramid)

Like Type 63 red AF, but with aramid fabric.

#### Type 63 green-blue-green (CSM/aramid)

Like Type 63 green, but with aramid fabric.

#### Type 63 yellow-blue-grey (NBR/aramid)

Like Type 63 yellow-grey, but with aramid fabric.

#### Type 63 white-blue-grey (NBR white/aramid)

Like Type 63 white-grey, but with aramid fabric.

#### Type 63 grey-blue-grey (CR/aramid)

Like Type 63 grey, but with aramid fabric.

#### Type 63 lilac-blue-lilac (FPM/aramid)

For flue gas desulphurisation systems and bio-diesel. High chemical resistance to benzene, xylene, toluene, aromatic, chlorinated hydrocarbons, mineral acids and fuels with an aromatic content of more than 50 %. For temperatures of up to +180 °C.

#### Type 63 silicone (silicone/glass fibre or aramid)

Suitable for hot air, acetic acid. Satisfactory resistance to aliphatic engine and gear oils. Also available in foodstuff quality. Excellent resistance to ageing, UV, ozone and weather. Very good radiation resistance. Not for use with steam above 120 °C. No resistance to fuels.

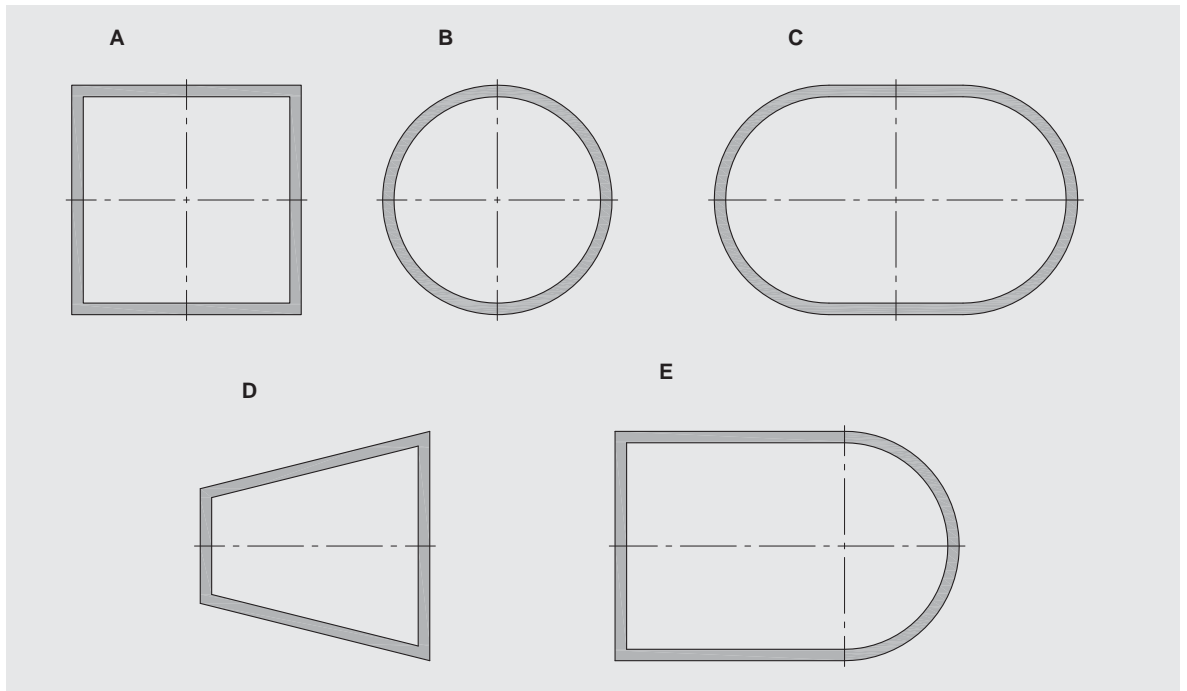
#### Note!

Detailed material descriptions on pages 5 - 7.

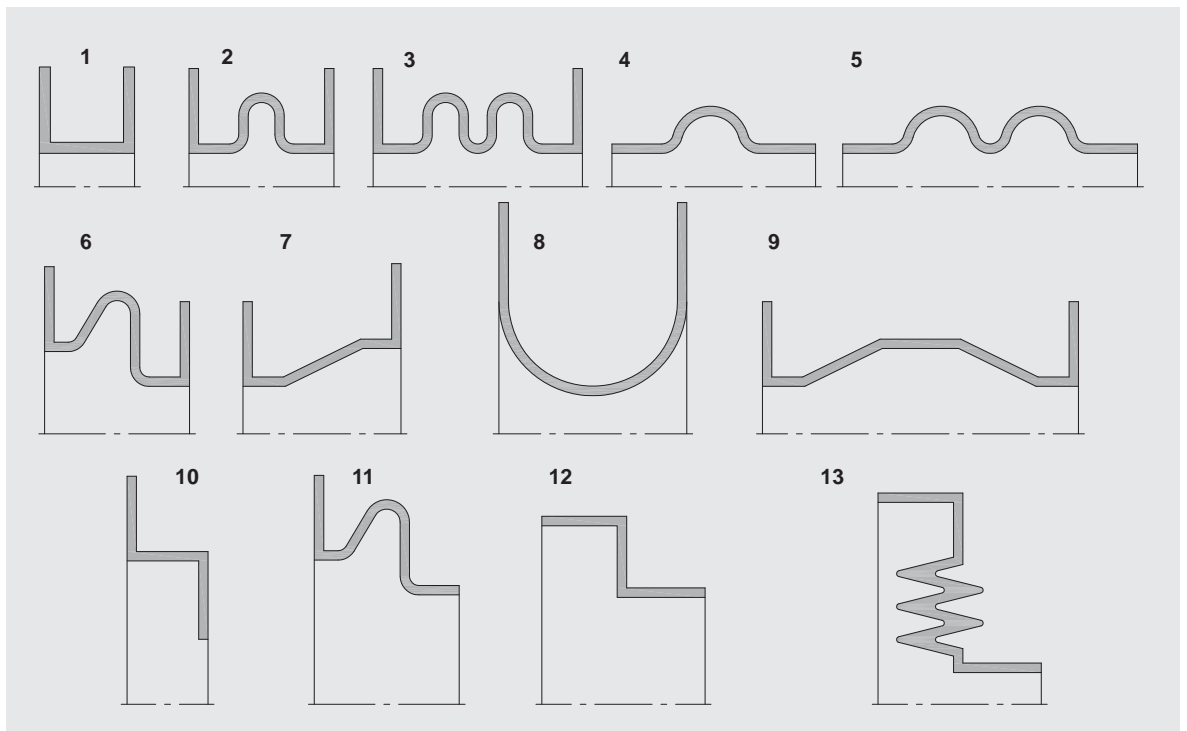


## WILLBRANDT Rubber Expansion Joint Type 63

Examples of cross-sections



Examples of bellow designs



Important information

Please note the appropriate fixed point constructions and plain bearings in your pipe system, as well as the tolerances as per the FSA Handbook (see the technical appendix on page 118)!

For more information please refer to our installation instructions (p. 97 - 116).

++++ We will be happy to send you further information on the individual types and designs. ++++